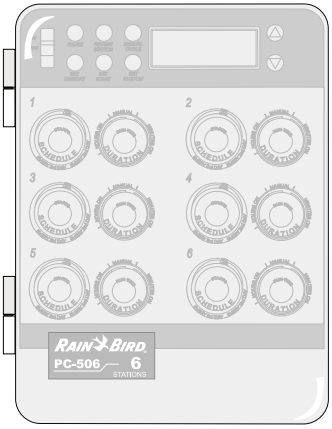
# PC 506 SPRINKLER TIMER

## Installation, Programming, and Operation Guide




RAIN BIRD IRRIGATION CORPORATION

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# *CONTENTS*


**INTRODUCTION ..... 1**
- Features & Benefits ..... 1
- Timer Stations ..... 2
- Controls & Indicators ..... 3

**INSTALL TIMER ..... 4**
- Select a Location ..... 4
- Mount Timer ..... 5
- Install Battery ..... 6
- Connect Field Wiring ..... 7
- Connect Transformer ..... 13

**PROGRAM TIMER ..... 15**
- Set Current Time and Day ..... 16
- Basic “Dial” Programming ..... 17
- Custom Programming ..... 23

**OPERATING THE TIMER ..... 30**
- Manual Operation ..... 30
- Manual Cycle ..... 30
- Other Timer Features ..... 32

**WINTERIZING THE SYSTEM ..... 33**

**TROUBLESHOOTING ..... 34**

# INTRODUCTION

Thank you for choosing a Rain Bird PC-506 Series Timer. PC-506 timers provide simple programming and flexible schedules to meet your watering needs.

This manual describes how to install, program, and operate your timer. Read this manual carefully and keep it handy for future reference.

If you have any problems with your PC-506 Timer, please call the Rain Bird Technical Assistance hotline at 800-247-3782. You may also find helpful information on the Rain Bird Web site: www.rainbird.com.

## Features & Benefits

The PC-506 Sprinkler Timer is an electronic clock that controls when your sprinkler system turns on and how long the sprinklers run. The PC-506 timer offers several advanced features, including:

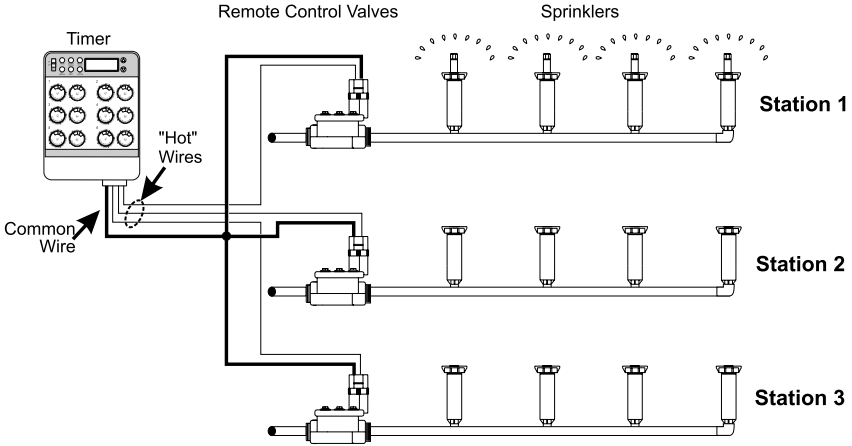
- Separate schedules for each station with just a turn of the dial
- 12 popular schedules to choose from, or set your own custom schedule
- Ability to water up to six zones
- Exclusive “new lawn” watering cycle for lawn seed germination or sod
- Large, easy-to-use dials save your schedules even during power outage
- Automatic watering up to three times per day, up to three hours per zone (ideal for drip watering)
- Large, easy-to-read LCD screen for setting time of day, watering start times, and custom schedules
- “Pause” feature to interrupt watering schedule for yard activity
- Pump start output standard (pump relays sold separately)

# Timer Stations

Most sprinkler systems divide the yard into “stations” (also called “zones”). You can program each station to water for a different length of time, so the amount of water fits the different plant types, soil conditions, and sunny/shady areas in the yard. The PC-506 Timer can control up to six stations.

Each station has an irrigation valve that runs several sprinklers. An electric signal from the timer opens the first valve, which turns on the sprinklers connected to it. When these sprinklers have run for their programmed time, the timer closes the first valve and opens the second valve.

For example, this illustration shows that station 1 is currently watering. When station 1 finishes, the timer will shut it off and start station 2. When station 2 finishes, station 3 begins, and so on.



# Controls & Indicators

This illustration shows the programming controls on the face of the PC-506 Timer. These controls include:

❶ On/Off button

❷ Pause button

❸ Set Time/Day button

❹ Review Station button

❺ Set Start button

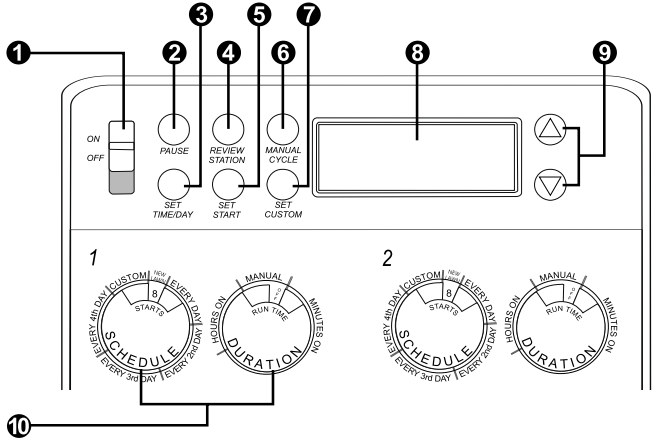
❻ Manual Cycle button

❼ Set Custom button

❽ LCD display

❾ Up/Down arrow buttons

❿ Station dials (6 sets, each with a Schedule and a Duration dial)

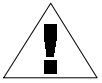


# *INSTALL TIMER*

Before installing your PC-506 Timer, make sure you have the following tools and equipment:

- Two #10 screws and mounting anchors
- Screwdriver
- 9-volt battery
- Color-coded, multi-strand, direct burial wire (18-gauge for runs of less than 800 feet; 14-gauge for longer runs)
- Wire strippers

## Select a Location



**NOTE:** The PC-506 Timer is for INDOOR use only. If you must install it outdoors, use a water-resistant cabinet, such as the Rain Bird Model TC-2 Timer Cabinet. The TC-2 is a heavy-duty, weather-resistant plastic case that lets you convert any indoor-only timer to outdoor use.

Select a convenient indoor location within 6 feet (1.9 m) of a 120-volt AC electrical outlet. The mounting location should be completely protected from moisture, direct sunlight, and freezing temperatures.

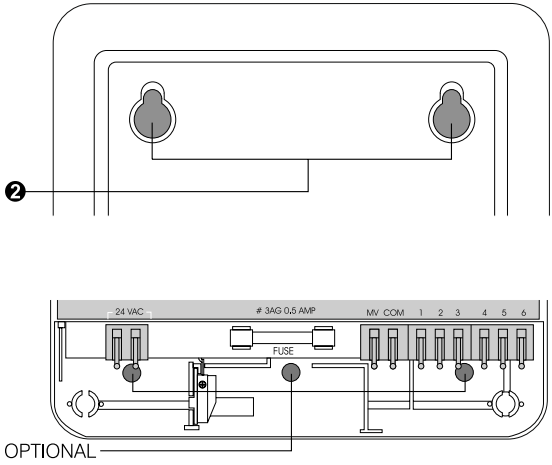
# Mount Timer

Before securing your timer to the wall, make sure that there is enough room on the left side for the door to swing open.

❶ Screw two #10 screws into the wall $3^{15}/_{16}$ inches apart, leaving about ¼ inch of each screw head protruding from the wall. Use plastic anchors to secure the screws to plaster or masonry walls.

❷ Hang the timer on the screws using the keyhole slots on its back.

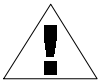
**OPTIONAL:** To further secure the timer, remove the lower access cover by gently prying it out of the slots on the lower left and right corners. Then drive screws through the lower three mounting holes.



# Install Battery

During a power outage, the battery preserves your programmed watering schedules. A newly installed battery will hold information for up to 24 hours.

If the power is out for more than 24 hours, or if the battery fails, the timer will revert to the pre-set start times of 6:00 a.m., 6:00 p.m., and 12 noon. Stations set for custom programs A and B will start once a day in a cycle beginning at 6:00 a.m. The time of day, all custom start times, and any A or B custom-program schedules will have to be re-programmed.



**NOTES:** The battery serves as memory back-up only. You can program the timer on battery power, but the system will not water without AC power.

Replace the battery once a year. If power outages occur frequently, you may need to change the battery more often.

When replacing the battery, DO NOT unplug the transformer or you will lose all programmed information.

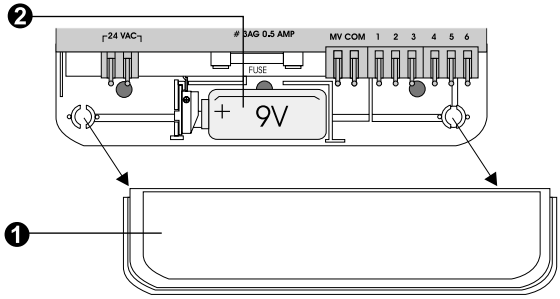
❶ To install the battery, remove the timer's lower access cover by gently prying it out of the slots on the bottom corners of the timer.

❷ Place a 9-volt alkaline battery, with the "+" side facing up, in the slot directly below the fuse. **DO NOT** use a rechargeable battery.

❸ Replace the cover, or connect the field wiring as described in "Connect Field Wiring."

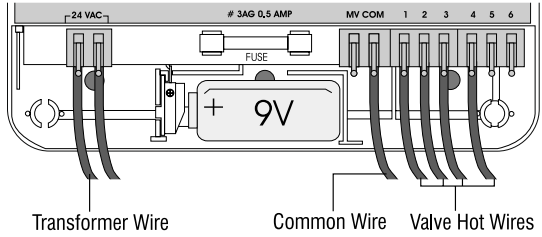
**NOTES**: **DO NOT** let the battery contact the timer's terminal strip.

For your convenience, there is a spare 0.5 amp fuse on the inside of the cover.




## Connect Field Wiring

If you have not done so, remove the timer's lower access cover. On the bottom right-hand corner of the timer, near the battery compartment, you will see a row of small, black switches. These are the terminals where you will connect the field wires.



## Select Proper Wire

For wire runs of less than 800 feet, use 18-gauge color-coded, multi-strand, direct burial wire. For longer runs, use 14-gauge wire of the same type.

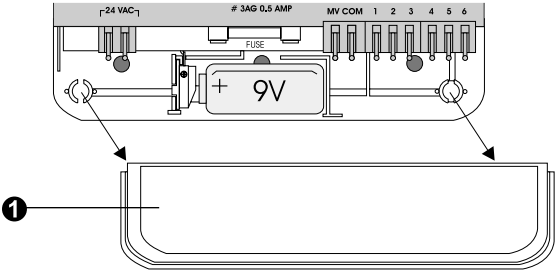
Choose wire that has one strand for each valve in your system, plus one for the common wire. For example, use five-strand wire if you have four valves, seven-strand wire for six valves, etc.

Tape off spare wire strands for future system use or troubleshooting. Wire that is buried underground must have watertight connections (use grease caps) and be code-approved for underground use. Avoid placing underground wire in places where it may be damaged by digging or other activities.

## Connect Valve Wires to Timer

Each valve connects to the timer with two wires: a “hot wire” of its own, and a “common wire” that it shares with the other valves.

❶ Remove the timer’s lower access cover by gently prying it out of the slots on the bottom corners of the timer.



**NOTE:** Make sure all wire connections are tight and in firm contact with the terminals. Use watertight splice connectors to prevent corrosion and avoid short circuits.

Make sure ½" of wire extends from each strand. If not, use wire strippers to cut ½" of insulation from each strand.

❷ Splice together one wire from each valve (usually the white strand) to create a single common wire. Connect the common wire to the terminal marked "COM:"

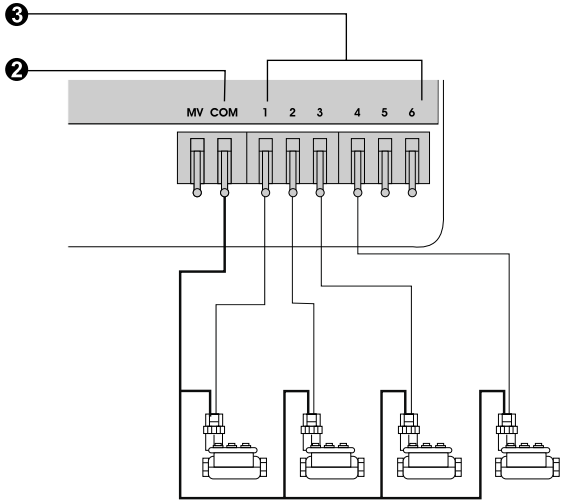
a. Open the terminal by pushing the switch up.

b. Insert the end of the wire into the terminal.

c. Close the terminal by pushing the switch back down.

❸ Connect each valve "hot" wire to the numbered terminal for the corresponding valve station:

a. Open the appropriate terminal (terminal #1 for valve #1, terminal #2 for valve #2, etc.) by pushing the switch up.

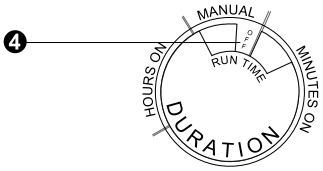


b. Insert the end of the wire into the terminal.

c. Close the terminal by pushing the switch back down.

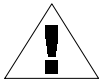
**CAUTION: DO NOT** connect more than one valve wire to each terminal; this will damage the timer. If using more than one timer, DO NOT share the “common” wires between them.

❹ If any terminal does not connect to a valve, turn the corresponding Duration dial to “Manual Off.”




**NOTE**: To save water and money, you can also use a rain sensor, such as Rain Bird’s RS-1 Rain Shut Off. The RS-1 measures rainfall and stops unnecessary watering.

## If Using a Master Valve or Pump Start Relay
***(Optional)***



**NOTE:** Complete this section only if your system requires a master valve (an automatic valve installed on the mainline pipe upstream from the station valves) or a pump start relay. The timer does not provide the main power for a pump.

PC-506 Timers allow a master valve or pump start relay to operate whenever a station valve is on. Some systems use a pump to draw water from a well or other source.

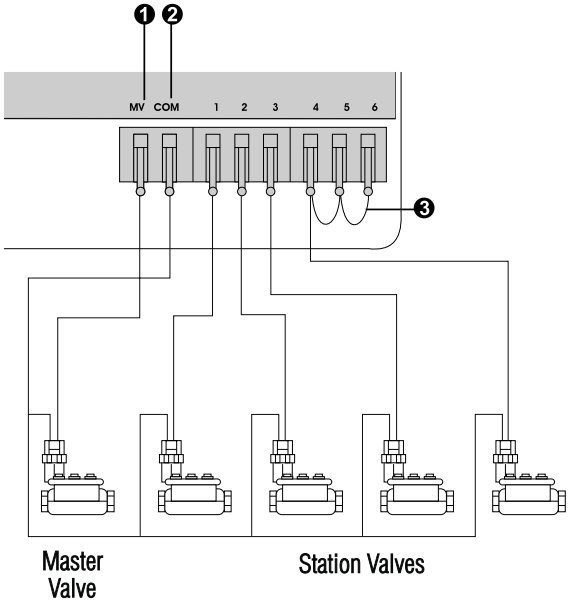
If you are activating a pump from the timer, you must use a Pump Control Relay, such as Rain Bird's PCR-1. The PCR-1 offers solid-state reliability and can activate most 120- or 240-volt pump motors up to two horsepower.

❶ Connect the color-coded “hot” wire from the master valve or pump start relay to the timer terminal marked “MV.”

❷ Connect the common wire from the master valve / pump start relay to the common wire coming from the station valves. This wire connects to the timer terminal marked “COM.”

**NOTE:** Make sure that the total draw of the master valve or pump start relay plus the draw of the valve does not exceed 0.650 Amps at 24 VAC, 60 Hz.

❸ To avoid possible pump damage, connect a short “jumper” wire from any unused station terminal(s) to the nearest terminal in use. For example, if you have a six-station timer with only four stations in use, jumper stations five through six to the nearest active station (four).



# Connect Transformer

After installing the battery and connecting the field wires, you are ready to connect the timer's transformer.

**CAUTION: DO NOT** plug in the transformer until you have completed and checked all wiring connections. Also, do not attempt to link two or more timers together with a single transformer.

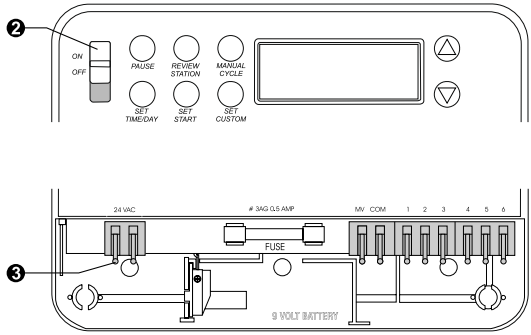
❶ If you have not done so, remove the timer's lower access cover.

❷ Turn the On/Off button to "Off."

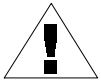
❸ Insert the two ends of the transformer wire into the transformer terminals marked 24 VAC.

a. Open the transformer terminals by pushing the switches up.

b. Insert the end of each transformer wire into one of the terminals. It does not matter which wire you connect to which transformer terminal.



c. Push the switches back down to hold the wire in place.



**NOTE:** If the display does not come on, verify that the battery is new and securely connected.

❹ Plug the transformer into an electrical outlet.

❺ Turn the On/Off button to “On.” This completes the installation and wiring process. You are now ready to program your timer.

# PROGRAM TIMER

Programming is the process of telling the timer when and how long you want to water each station. When you set a program, you schedule three things:

**Watering days** — the specific days of the week on which watering takes place (for example, every third day).

**Start time** — the time(s) of day that watering begins. This is the time the first station in the program begins watering; all other stations then follow in sequence.

**Watering duration (run time)** — the number of minutes that each station runs.

When programming, you can only change the field that is flashing in the LCD display. To change something else, press the appropriate button until the item you want to change flashes. For example, to change the minutes, press "Set Time/Day" until the minutes field is flashing.

There are two ways to program your timer:

1. The "basic dial" program lets you set watering days, times, and durations just by turning two dials for each station. These dials offer several watering cycles, such as "every day" or "every 3rd day." To learn about using the basic program, see "Basic Dial Programming" on page 18.

2. The "custom programs A and B" option lets you select specific days of the week rather than the cycles on the dials. You can also program a set of start times to use with the new cycles. To learn more about setting custom programs, see "Custom Programming" on page 24.

Before you program your watering schedule, set the current time and day on the timer.

# Set Current Time and Day

You must set the current time and day the first time you program the timer, and after any power interruption.

❶ Turn the “On/Off” button to ON.

❷ Make sure **none** of the Duration dials are set to “manual on.”

❸ Press the “Set Time/Day” button once. The hour digits will flash in the LCD screen.

❹ Use the ▲ and ▼ buttons to set the current hour. Keep scrolling until the desired time, including the AM/PM indicator, appears.

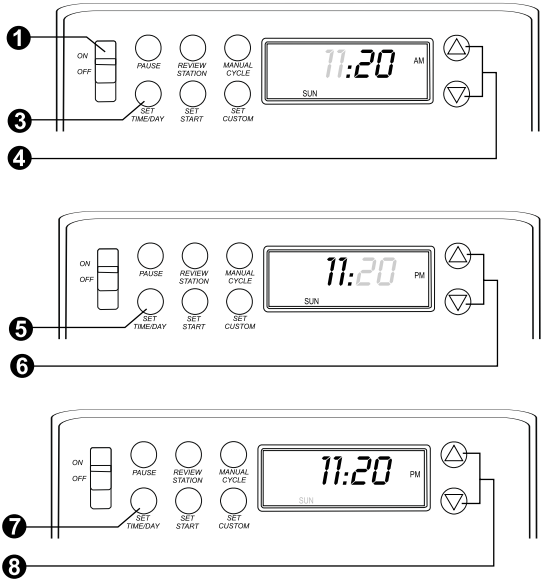
❺ Press “Set Time/Day” again. The minute digits will flash in the LCD screen.

❻ Use the ▲ and ▼ buttons to set the minutes.

❼ Press “Set Time/Day” again. A day of the week will flash in the LCD display.

❽ Use ▲ and ▼ buttons to select the current day.

❾ Press “Set Time/Day” to exit this function.



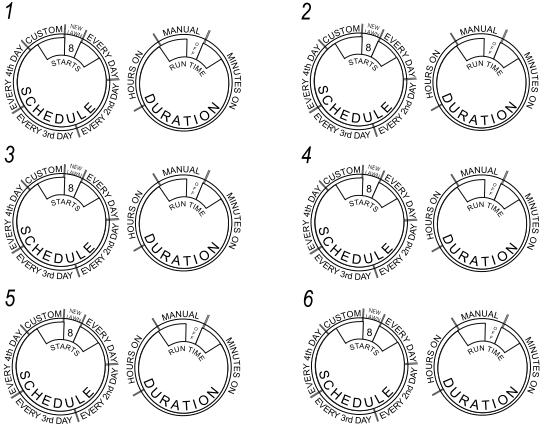
# Basic “Dial” Programming

On the front of your PC-506 timer, you will see six pairs of dials, numbered 1 through 6. Each pair of dials represents a watering station (or “zone”) in your irrigation system.

**NOTE:** For more information about stations, see “Timer Stations” on page 2 of this manual.

The two dials for each station are:

- **Schedule Dial** — To select what days and how many times per day to water.
- **Duration Dial** — To select the length of each watering (“run time”).



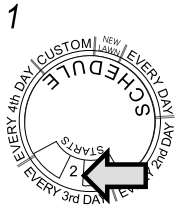
## Watering Days and Number of Waterings Per Day (Schedule Dial)

For each station in your irrigation system, use the Schedule dial to select a cycle (i.e., how many days should pass before the system waters), and how many times per day to water. The Schedule dial lets you choose between Normal Watering, New Lawn Cycling, or Custom Programs.

### *Normal Watering*

Select a watering cycle of every day, every second day, every third day, or every fourth day. For example, if today is Monday and you turn the Schedule dial to "every third day," then watering will take place today and again on Thursday, Sunday, Wednesday, and so on — every third day.

Within each of these cycles, you can choose to water once, twice, or three times per day. Just turn the dial to the number of times you want the system to run on watering days. This illustration shows Station 1 set to water twice on every third day.



## *New Lawn Cycling*

If you have a newly seeded lawn that requires frequent watering, turn the Schedule dial to “new lawn.” The New Lawn selection waters eight times a day, for up to 15 minutes at a time. The first cycle begins at 6:00 a.m. and repeats every two hours until 8:00 p.m.

**NOTE:** If a station is set to “New Lawn,” it will not water for more than 15 minutes, even if the Duration dial is set for longer.

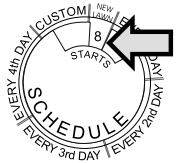
New Lawn stations have priority, and will interrupt any other ongoing cycles. After the New Lawn Cycle is complete, the interrupted cycle will resume.

Once your lawn is established, change the Schedule dial to one of the other watering schedules.

## *Custom Programs (A and B)*

The Schedule dial also has a “Custom” setting, which lets you select specific days of the week on which to water. For example, you could choose to water every Monday, Wednesday, and Saturday. For instructions, see “Custom Programming.”

*1*



## Watering Run Time (Duration Dial)

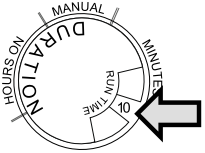
The Duration dials let you do either of two things:

❶ Program the length of each watering period ("run time") so that the timer will turn the sprinklers on and off automatically.

❷ Run the sprinklers manually for as long as you want.

### *Automatic Operation*

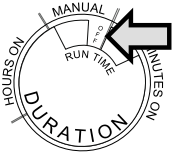
By now, you have used the Schedule dial to tell the timer how often to turn the sprinklers on. Now you will use the Duration dial to tell the timer how long to run the sprinklers.




For each station, turn the Duration dial to the number of minutes or hours you want to water. This illustration shows that every time Station 1 comes on, it will run for 10 minutes.

### *Manual Operation*

You can also use the Duration dial to turn the sprinklers on or off. To start watering a station immediately, turn its Duration dial to ON. To turn a station off indefinitely, turn the dial to OFF. Be sure to return the dial to the desired length of time when you want to resume automatic operation.



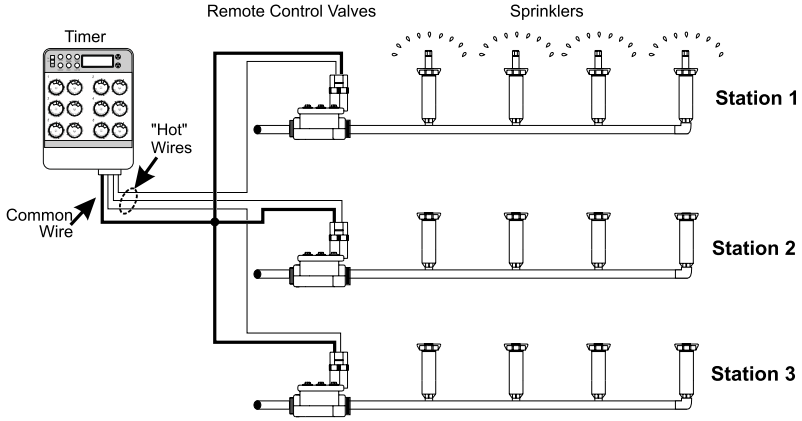
## Start Times

**NOTE:** Do not confuse start time numbers with station numbers. When you are setting Start Times, the word “Start” appears in the top left corner of the LCD screen.

The PC-506 timer allows up to three start times per day. A “start time” tells the timer when to begin the entire irrigation program, starting with the first active station. For example, if the start time is 6:00 a.m., the timer will start Station 1 at 6:00 a.m. If Station 1 is set to OFF, the timer will start Station 2 instead.

When the first station in your program finishes watering, the other stations will start automatically, one by one, in sequence. You do NOT need to set start times for the other stations.

Remember, when you program three start times, you are setting three times for the system to run through the entire cycle — you are NOT setting start times for individual stations.



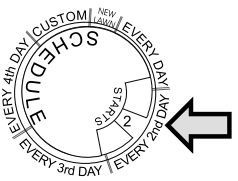
## *Use Pre-Programmed Start Time(s)*

**NOTE:** Each "start time" you set affects all the watering stations. If you have questions about start times, be sure to read the explanation at the beginning of this section.

Your timer comes with three pre-set start times:

- Start #1: 6:00 a.m.
- Start #2: 6:00 p.m.
- Start #3: 12 noon

To use the pre-programmed start times, set the watering cycle (using the Schedule dials) and run times (using the Duration dials). Watering will begin on the next scheduled start time.



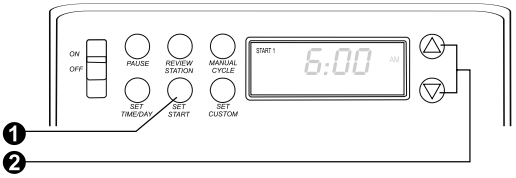

*Example: With the Schedule Dlal set as pictured, the sprinklers will come on every second day, twice a day, at 6:00 a.m. and 6:00 p.m.*

## *Set Your Own Start Times (Optional)*

To change the Start Times:

❶ Press "Set/Start." START 1 will appear in the upper left corner of the display.

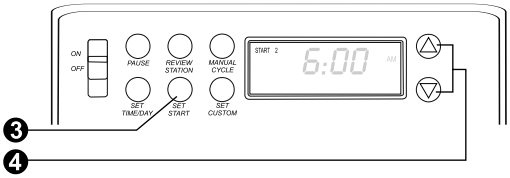
❷ Use the ▲ and ▼ buttons to adjust Start Times in 1/2 hour increments. Keep scrolling until the desired time, including the AM/PM setting, appears.

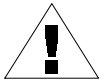


❸ Press “Set/Start” again. START 2 will appear in the display.

❹ Use the ▲ and ▼ buttons to adjust start times in 1/2 hour increments, as in step 2.

❺ Repeat the process for a third start time. Then press “Set Time/Day” to exit this function. (The display will automatically revert to normal time of day after approximately 15 seconds.)



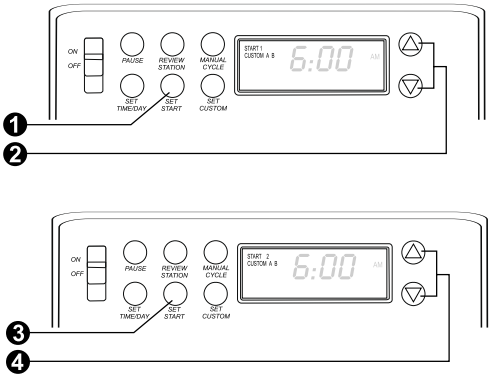
**NOTE:** The Schedule dial settings determine the number of start times that the timer uses. For example, if the number of daily watering times on a dial is 2, the timer will ignore the 3rd start time for that station.

# Custom Programming

The Custom Programming feature of the PC-506 timer gives you the option of programming three additional start times that apply to both the A and B custom programs.

Later, you can set each start time on or off for Programs A and B, separately. (You’ll find those instructions starting on page 26.) Before you do that, though, you need to set the custom start times as follows.

## Set Custom Start Time(s) for Programs A and B




1. Press the “Set/Start” button four times until the display shows START 1 CUSTOM AB in the upper left corner.

2. Use the up & down buttons to adjust Start Times in 1/2 hour increments. Keep scrolling until the desired time, including the AM/PM setting, appears.

3. Press “Set/Start” again. START 2 CUSTOM AB will appear in the display.

4. Use the up & down buttons to adjust start times in 1/2 hour increments, as in step 2.

5. Repeat the process for a third custom start time. Then press “Set Time/Day” to exit this function. (The display will automatically revert to normal time of day after approximately 15 seconds.)

# Set Custom Program A

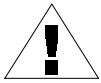
*Set Watering Start Time(s)*

The three custom start times you programmed in the previous section will affect both Programs A and B. Now you need to set Program A to accept or ignore each of those custom start times.

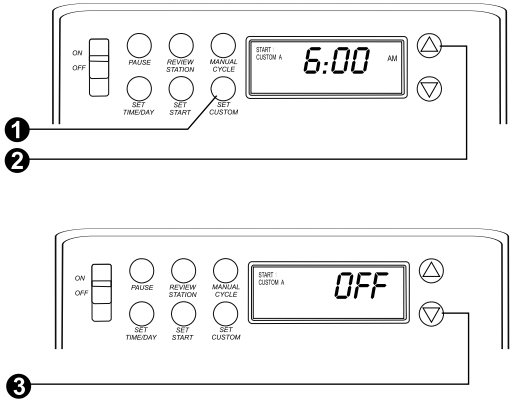
❶ Push the “Set Custom” button. CUSTOM A will appear in the display and the number 1 will flash, indicating that the time shown in the display is the first custom start time.

❷ If you want to water at this time, press ▲ to accept it and advance to the next start time.

❸ If you not want to water at the time shown, press ▼ to turn the start time OFF. Then press ▲ to advance to the next start time. The number 2 will flash when the second start time appears.



**NOTE:** If you make a mistake, use the ▲ button to advance through the custom start times until you get back to the one you want to change. Then press ▼ to change the status. Press ▲ again to advance to the next start time.



❹ Repeat the process to assign the second and third custom start times.

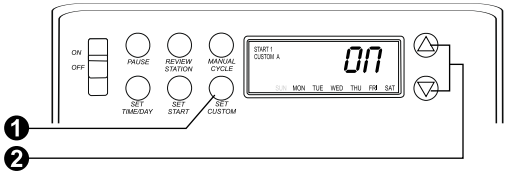
## *Set Watering Days*

❶ Press “Set Custom” again to set specific days to water. (If the display has returned to the current time, press “Set Custom” twice.)

The display will show CUSTOM A in the upper left corner, and the first day of the week will flash. “ON” or “OFF” will appear, indicating whether the system will water on that day.

❷ Press ▲ to retain the current setting. The display will automatically advance to the next day. Press▼ to change the setting, and then press ▲ to advance to the next day.

❸ Continue in this manner until all seven days of the week have been set to either ON or OFF.



# Set Custom Program B

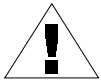
*Set Watering Start Time(s)*

The three custom start times you programmed affect both Programs A and B. Now you need to set Program B to accept or ignore each of these custom start times.

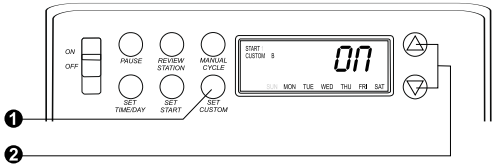
❶ Push the “Set Custom” button again immediately after setting Custom Program A. (If the display has returned to the current time, press “Set Custom” three times until the display shows START 1 CUSTOM B in upper left hand corner.)

❷ The number 1 will flash, indicating that the time shown in the display is the first start time. If you want to water at this time, press ▲ to accept it and advance to the next start time.

❸ If you do not want to water at the time shown, press ▼ to turn the start time OFF. Then press ▲ to advance to the next custom start time. The number 2 will flash when the second start time appears.



**NOTE:** If you make a mistake, use the ▲ button to advance through the custom start times until you get back to the one you want. Then press ▼ to change the status. Press ▲ again to advance to the next start time.



❹ Repeat the process to assign the second and third custom start times.

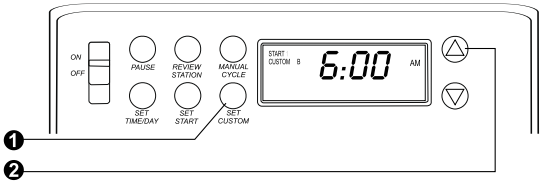
## *Setting Watering Days*

❶ Press “Set Custom” again to set specific days to water. (If the display has returned to the current time, press “Set Custom” four times.)

The display will show CUSTOM B in the upper left corner, and the first day of the week will flash. “ON” or “OFF” will appear, indicating whether the system will water on that day.

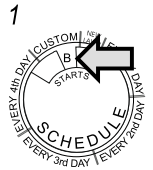
❷ Press ▲ to retain the current setting. The display will automatically advance to the next day. Press▼ to change the setting, and then press ▲ to advance to the next day.

❸ Continue in this manner until all seven days of the week have been set to either ON or OFF.



## Assigning a Station to Program A or B

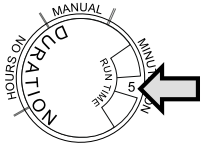
To assign a station to Custom Program A or B, turn that station's Schedule dial to "A" or "B." For example, this illustration shows Station 1 assigned to Custom Program B.




## Setting the Watering Duration

After you assign each station to Program A or B, use the Duration dials to set the length of time you want each station to run. Turn each Duration dial to the number of minutes or hours you want to water.

For example, this illustration shows that Station 1 will run for 5 minutes at a time.



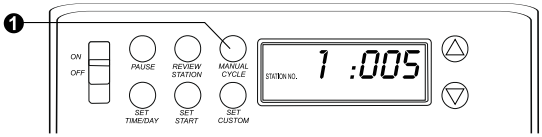
# OPERATING THE TIMER

## Manual Operation

To operate a station manually, you can use the Manual Cycle button, the Pause button, or the Duration dial.

### Manual Cycle

The “Manual Cycle” button lets you run all the stations immediately, in sequence (#1 through #6).



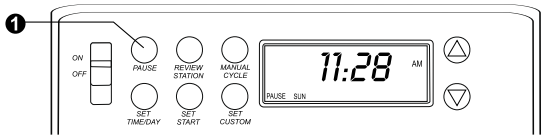

❶ Press “Manual Cycle.” The first station in your program will begin watering, and the display will show a countdown of time remaining. For example, this illustration shows Station #1 counting down a five-minute water duration.

❷ To advance to next station before the current station finishes its run time, press “Manual Cycle” again.

❸ Press “Set Time/Day” to end the manual cycle. The display will return to the current time of day.

## Pause Function

The “Pause” function temporarily suspends watering on all stations. This can come in handy when you need to do maintenance or other yard activities.

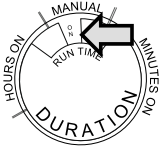



❶ Press “Pause” to interrupt watering immediately. The word PAUSE will appear in the lower left corner of the LCD display.

❷ To resume watering, press “Pause” again. The system will continue its normal watering schedule.

## Duration Dial Operation

The Duration dial for each station has a “manual” setting that you can use to start or stop watering for that station. This is helpful when you need to test a station or skip an unused station.




❶ Turn the Duration dial to ON to start watering that station immediately, and OFF to eliminate watering for that station.

❷ Return the dial to the desired length of time to resume automatic operation.

# Other Timer Features

## ON / OFF Switch for Rainy Periods

Your timer's "On/Off" switch lets you stop watering without erasing programmed information. Normally, you will keep the timer on. However, if you want to suspend watering indefinitely (for example, during the rainy season), turn it off. The display will alternate between the time of day and OFF.

## Review Station Button

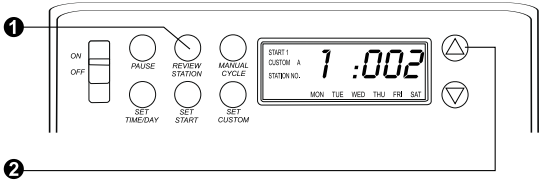
The "Review Station" button lets you check the timer settings without having to use programming functions. The "Review Station" button will display the station number, watering duration, and which days of the week (following the current day) each station will water.

❶ Press the "Review Station" to view the status and settings of the first station.

❷ Use the ▲ button to advance through each station.

In this example, Station #1 is on the "Custom Program A" to run Monday through Saturday for two minutes. The days listed across the bottom are the watering days scheduled for the remainder of the week.

**NOTE:** If an "N" appears on the right of the station number, it indicates that the station is set on "New Lawn."



# WINTERIZING THE SYSTEM

In cold-weather areas, you may want to turn off your timer during winter months. Before shutting down the system for the winter, make sure to drain the water from all irrigation lines to prevent freezing damage to pipes and valves.

Then turn the switch on the timer to the OFF position.

For more information about “winterizing” your system, please call your local irrigation professional, visit our Web site at www.rainbird.com, or call 800-RAINBIRD.

In lightning-prone areas, Rain Bird recommends that you disconnect the field wires from the timer’s terminal strip, and unplug the transformer from the outlet. This will protect the timer from lightning-caused power surges.

# TROUBLESHOOTING

| Symptom | Cause | Correction |
|---|---|---|
| **Electrical Issues** | | |
| 1. LCD display is blank, says PO OFF, or flashes OFF and the time. | a. Timer is off. | Turn the switch at the top, left-hand corner of the timer to ON. |
| | b. Fuse is burned out. | Remove the burned out fuse located just above the battery. Replace it with the spare 0.5 amp fuse on the inside of the timer's lower access cover. |
| | c. Transformer is not plugged in. | Make sure the transformer wire is connected and the transformer is securely plugged in. |
| | d. Wall socket is not supplying power. | Make sure the main AC power supply is working properly. |

| Symptom | Cause | Correction |
|---|---|---|
| **Electrical Issues** | | |
| 2. LCD display is “frozen” and the timer will not accept programming. | An electrical surge may have damaged the timer’s electronics. | Unplug the timer and remove the battery and fuse. Let the timer sit for three minutes without power. Then reinstall the battery and fuse, and plug in the timer.<br><br>If there is no permanent damage, the timer will accept programming and resume normal operation. |
| 3. Fuse blows out frequently and the display goes blank. | a. Possible short between the valve and timer. | Check all field wiring for nicked or “skinned” wires. Check all wiring connectors. Repair or replace as needed. |
| | b. Possible shorted solenoid on one or more valves. | Check all valve solenoids for proper operation. Replace as needed. |
| 4. Fuse blows as soon as the timer is plugged in. | a. Faulty transformer. | Replace the transformer. |
| | b. Electrical short in the timer. | Call the Rain Bird Technical Assistance Hotline at 800-247-3782. |

| Symptom | Cause | Correction |
|---|---|---|
| **Watering Issues** | | |
| 5. Automatic and Manual cycles do not water. | a. Water source not supplying water. | Make sure the main water line and all supply lines are open and operating properly. |
| | b. Wires not properly connected. | Make sure all field wires and master valve/pump start relay wiring is connected properly. |
| | c. Wires loose or cut; corroded connections. | Check field wiring for broken, cut, or “skinned” wires. Replace if necessary. Check all wire connections and replace with watertight splice connectors, as needed. |
| | d. Timer is set to OFF. | Turn the switch at the top, left-hand corner of the timer to ON. |
| | e. All stations set to MANUAL OFF. | Check all stations’ watering duration. Turn each station’s Duration dial to the appropriate run time. |
| 6. A single station does not shut off after watering. | Valve may be stuck open due to debris. | Inspect the valve and remove any debris. |

| Symptom | Cause | Correction |
|---|---|---|
| **Watering Issues** | | |
| 7. Valve does not shut off after watering at the scheduled time. | a. Valve may be clogged. | Inspect the valve and remove any debris. |
| | b. Timer's memory board is "locked on." | Unplug the timer and remove the battery and fuse. Let the timer sit for three minutes without power. Then reinstall the battery and fuse, and plug in the timer. If the surge did no permanent damage, the timer will accept programming and resume normal operation. If the timer still does not work, contact your Rain Bird distributor or the Technical Assistance Hotline (800-247-3782) for a service referral. |
| 8. A station won't stop watering and the timer will not accept programming. | The Duration dial for that station is set to"Manual On" | Turn the Duration dial to another setting. |
| 9. A single station does not shut off after watering. | Valve may be suck open due to debris. | Inspect the valve and remove any debris. |

**NOTE**: This irrigation timer generates radio frequency energy and may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- reorient the receiving antenna
- move the timer away from the receiver
- plug the timer into a different outlet so the timer and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio and television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful: How To Idenfify and Resolve Radio-TV Inferference Problems. This booklet is available from the US Government Printing Office, Washington D.C. 20402, Stock No. 004-000-0034504. (Price is $2.00 postpaid.)

**Rain Bird Corporation Customer Support Center**
**6640 S. Bonney Ave.**
**Tucson, AZ 85706**
**1-800-RAIN-BIRD**
**(520) 434-6290 FAX**
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